

DEVAL L. PATRICK GOVERNOR TIMOTHY P. MURRAY

LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD SECRETARY

JOHN AUERBACH COMMISSIONER

# The Commonwealth of Massachusetts

Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

11/29/2011

Edward Curley Assistant District Attorney, Suffolk County

Dear ADA Curley,

Enclosed is the information you requested in regards to Commonwealth vs. Included are copies of the following:

- 1. Curriculum Vitae for Annie Dookhan and Kate Corbett.
- 2. Drug Analysis Laboratory Receipt.
- 3. Control Cards with analytical results for samples #
- 4. Analysis sheets with custodial chemist's hand notations and test results.
- 5. GC/Mass Spectral analytical data for samples #

Annie Dookhan was the custodial chemist and performed the preliminary testing and net weight for this sample. Kate Corbett analyzed the GC/MS data for this sample.

If you have any questions about these materials, please call me at the number below.

Annie Dookhan

Chemist

Sincerely

Drug Analysis Lab

Jamaica Plain, MA. 02130

(617) 983-6622

## Curriculum Vitae

## Annie Khan (Dookhan)

#### Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry. University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

## Experience:

2003 - present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

- \*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
- \*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.
- \*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.
- \*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
- \*Maintenance and repairs of all analytical instruments.
- \*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.
- \*Oversee the Quality Control/Quality Assurance program for the Drug Lab.
- \*Writing, revising and reviewing Standard Operating Procedures (SOPs) and Protocols.
- \*Notary Public.
- \*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 - 2003

QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

- \*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.
- \*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.
- \*Writing, revising and reviewing Standard Operating Procedures (SOPs).
- \*Trained and supervised new chemists and interns for the department.
- \*Routine QC testing of products for the FDA.
- \*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
- \*Calibration, preventive maintenance, QC and QA of analytical instrumentation.
- \*Complete testing of chemicals for Vendor Validation Project for the FDA.
- \*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

### Additional Training:

Dept. of Justice - Forensics Professionals. (numerous trainings)

GLP/GMP training with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS trainings with Agilent Technologies and Restek.

HPLC and LC/MS/MS trainings with Waters Cooperation.

FTIR training with Spectros.

TOC training with MBL and Sievers.

#### Association:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

## Curriculum Vitae

## Kate A. Corbett

## Education

## Bachelor of Science Degree, CHEMISTRY May 2003

MERRIMACK COLLEGE

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

## **Employment**

Chemist II State Laboratory Institute (March 2008-Present)

Massachusetts Department of Public Health

**Drug Analysis Laboratory** 

- Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation, microscopes and balances for forensic drug analysis

Chemist I State Laboratory Institute (2005-March 2008)

Massachusetts Department of Public Health

**Drug Analysis Laboratory** 

- Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation for the purpose of performing forensic drug analysis
- Successfully completed an eight week training course in the analysis of drugs conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory
- Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005.

## Research Associate (September 2003 – August 2005)

SENSOR TECHNOLOGIES, INC - Shrewsbury, MA

- Prepared chemistries used in making sensor beads
- Generated and examined sensors employing fluorescence spectroscopy
- > Performed protein, dye and sugar assays using UV/VIS spectrophotometry
- Carried out titrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

Intern (March 2003 – August 2003)

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units

BOSIONE DE PARTMENT DRUG RECEIPT	CC #_ BOOK #		
	DESTRUCTION #		
District/Unit	55 / 4	167	50
Name & Rank of Arresting Officer	1) /P. Foley	ID# <u>//6</u> &	5
DEFENDANT'S NAME	ADDRESS	CITY	STATE
		Dorchester	MA
			,
		LAB US	ONLY
DESCRIPTION OF ITEMS SUBMITTED	GROSS QUANTITY	GROSS WEIGHT	ANALYSIS NUMBER
Afficing Cocaine	2 Plastic GAY	r 146.02	
			., .
		004038620007-100932100068004C002300008030000802304C004219E3C336000F000F	-073002300130427372333840027387000700000000000000000000000000000
To be completed by ECU personnel only			
Name and Rank of Submitting Officer Sylva	V White	ID# //06	4
Received by		Date	14-10

ECU Control #

No.

Date Analyzed:

City: Boston D.C.U. Police Dept.

Officer: P.O. SYBIL WHITE

Def:

Amount:

1

No. Cont:

2

Cont: pb

Date Rec'd: 10/14/2010

Gross Wt.:

146.02

No. Analyzed:

Net Weight: 128-1

Subst: SUB

# Tests: 12 ASD

Prelim: Cocare

Findings:

# DRUG POWDER ANALYSIS FORM

SAMPLE#	AGENCY	B08400	ANALYST	(A)
No. of samples tested:	-		Evidence Wt.	
PHYSICAL DESCRIPTION:			Gross Wt (2):	135.9
onix power	stance	<u> </u>	Pkg. Wt:	
	•			
PRELIMINARY TESTS Spot Tests			Microcrystalline Tes	its
Cobalt 2_Thiocyanate ( +) +		ı	Gold Chloride +	:
2 Marquis		2	_ TLTA <u>( −) +-</u>	
2 Froehde's			OTHER TESTS	· · · · · · · · · · · · · · · · · · ·
				· · · · · · · · · · · · · · · · · · ·
PRELIMINARY TEST RESULTS		G	C/MS CONFIRMATORY	TEST
RESULTS Cocaup	- The state of the	RE	ESULTS (occurs	
DATE 10-27-10		OPE	MS RATOR <u>ICAC</u>	
		•	DATE 11-2-10	

Revised 7/2005

# samples tested:

2

#	Gross Weight	Packet Weight	Net Welght	#	Gross Welght	Packet Welght	Net Weight	
1	128.6	4.О	124.6	26	offwhile cl	runicy + por	udered sub	].
2	7.3921	3.8846	3.5675	27	0/00/2/6/20	sect > occ	white Chesi	ر دبره
3_				28	**************************************			0
4		awaaaaa in kaanaa ahaa ahaa ahaa ahaa ahaa ahaa a		29		-8-000-A-000-0-11-11-11-11-11-11-11-11-11-11-11-		
5				30				
6				31				
7				32				
8	, pp. 10			33				
9	·			34				
10				35				
11	,			36				
12				37				
13				38				
14	,			39		·		
15				40				
16				41	and the state of t		10000000000000000000000000000000000000	
17				42			<b>986</b>	
18				43				
19	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			44				
20				45				
21				46				
22				47				
23				48				
24	7.000			49				
25				50				

Calculations;

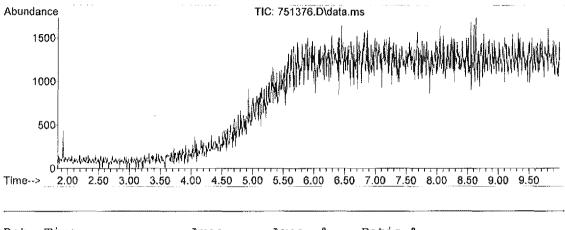
De+ w= 128-1075

File Name : F:\Q4-2010\SYSTEM4\10 28\_10\751376.D

Operator : ASD

Date Acquired : 29 Oct 2010 2:07

Sample Name : BLANK Submitted by : ASD Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time

Area

Area

Ratio %

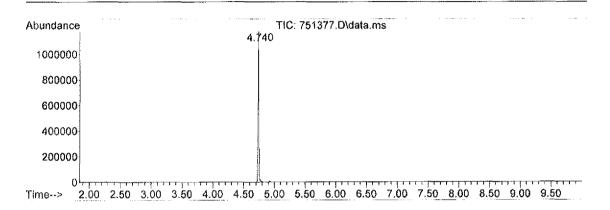
File Name : F:\Q4-2010\SYSTEM4\10 28 10\751377.D

Operator : ASD

Date Acquired : 29 Oct 2010 2:20

Sample Name : COCAINE STD

Submitted by : ASD Vial Number : 77 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.740	1185037	100.00	100.00

File Name : F:\Q4-2010\SYSTEM4\10 28 10\751377.D

Operator : ASD

Date Acquired : 29 Oct 2010 2:20

Sample Name : COCAINE STD

Submitted by : ASD Vial Number : 77 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80

C:\Database\NIST05a.L

Minimum Quality: 70

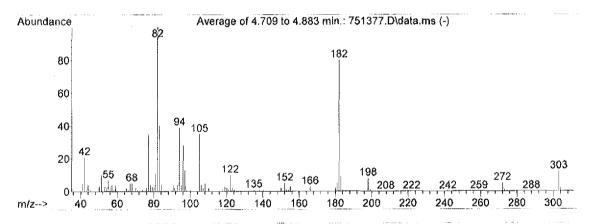
C:\Database\PMW TOX2.L

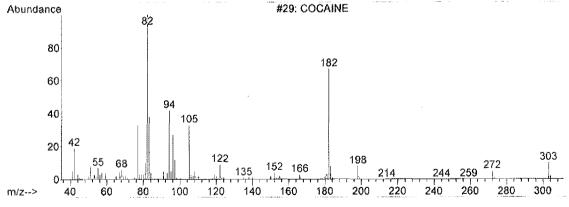
PK# RT Library/ID CAS# Qual

1 4.74 C:\Database\SLI.L COCAINE

000050-36-2

99



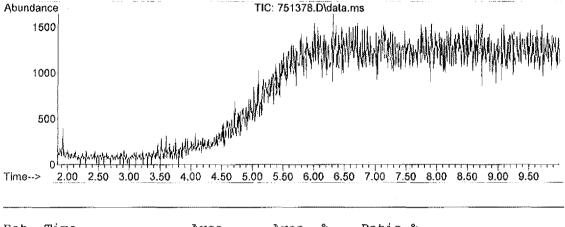


File Name : F:\Q4-2010\SYSTEM4\10\_28\_10\751378.D

Operator : ASD

Date Acquired : 29 Oct 2010 2:34

Sample Name : BLANK Submitted by : ASD Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time

Area

Area %

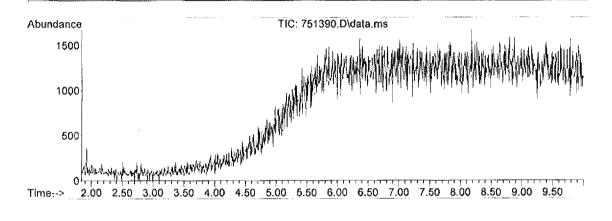
Ratio %

File Name : F:\Q4-2010\SYSTEM4\10 28\_10\751390.D

Operator : ASD

Date Acquired : 29 Oct 2010 5:21

Sample Name : BLANK Submitted by : ASD Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time

Area

Area %

Ratio %

\*\*\*NO INTEGRATED PEAKS\*\*\*

751390.D

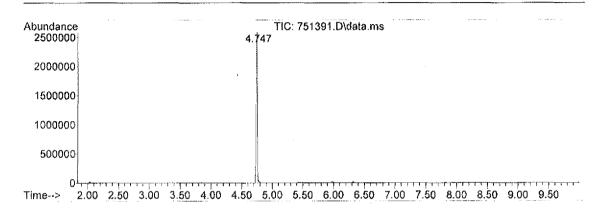
File Name : F:\Q4-2010\SYSTEM4\10 28 10\751391.D

Operator : ASD

Date Acquired : 29 Oct 2010 5:34

Sample Name

Submitted by : ASD Vial Number : 91 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.747	3140597	100.00	100.00

File Name : F:\Q4-2010\SYSTEM4\10 28 10\751391.D

Operator : ASD

29 Oct 2010 5:34 Date Acquired

Sample Name

Submitted by : ASD Vial Number 91 AcquisitionMeth: DRUGS Integrator RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 Minimum Quality: 70

C:\Database\NIST05a.L

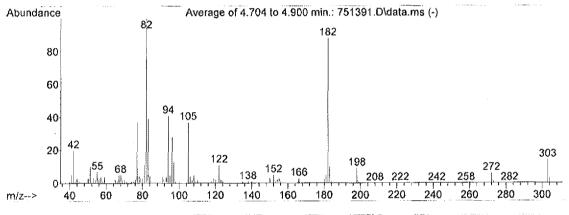
C:\Database\PMW TOX2.L

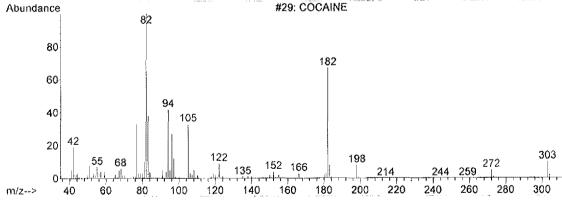
CAS# Qual PK# RT Library/ID

4.75 C:\Database\SLI.L 1

COCAINE

000050-36-2 99





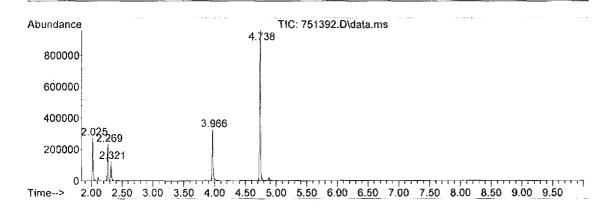
File Name :  $F: Q4-2010 \SYSTEM4 \10 28 10 \751392.D$ 

Operator : ASD

Date Acquired : 29 Oct 2010 5:48

Sample Name

Submitted by : ASD
Vial Number : 92
AcquisitionMeth: DRUGS
Integrator : RTE



Ret. Time	Area	Area %	Ratio %	
2.025	230627	12,68	25.28	
2.269	209800	11.53	23.00	
2.321	114283	6,28	12.53	
3.966	352146	19.36	38.61	
4.738	912112	50.14	100.00	

File Name : F:\Q4-2010\SYSTEM4\10\_28\_10\751392.D

Operator : ASD

Date Acquired : 29 Oct 2010 5:48

Sample Name :

Submitted by : ASD Vial Number : 92 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\Database\SLI.L

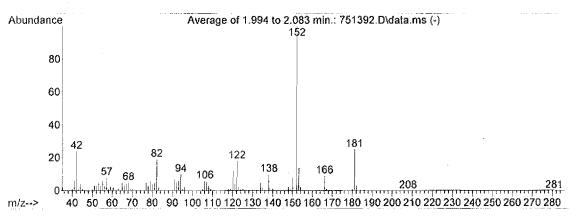
Minimum Quality: 80

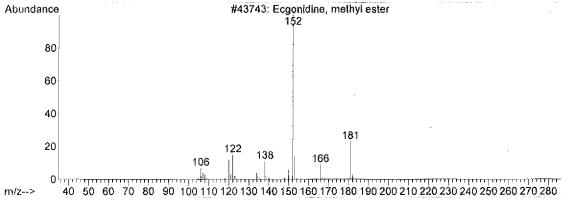
C:\Database\NIST05a.L

Minimum Quality: 70

C:\Database\PMW\_TOX2.L

F	PK#	RT	Library/ID	CAS#	Qual
	1	2.03	C:\Database\NIST05a.L Ecgonidine, methyl ester 2-Carbomethoxy-8-methyl-8-azabicycl 2,6-Dimethoxytoluene	127379-24-2 043021-26-7 005673-07-4	98 95 43





File Name : F:\Q4-2010\SYSTEM4\10 28 10\751392.D

Operator : ASD

Date Acquired : 29 Oct 2010 5:48

Sample Name :

Submitted by : ASD Vial Number : 92 AcquisitionMeth: DRUGS Integrator : RTE

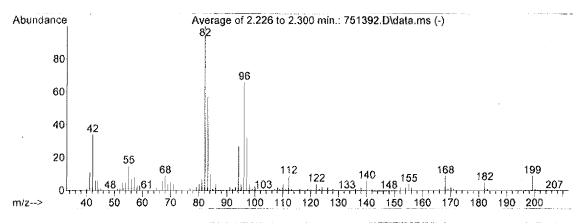
Search Libraries: C:\Database\SLI.L

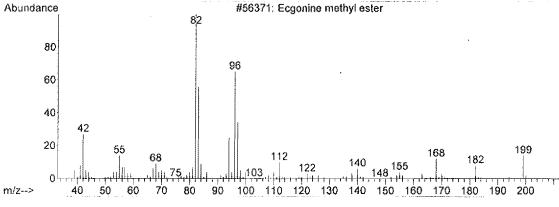
JI.L Minimum Quality: 80 (ST05a.L Minimum Quality: 70

C:\Database\NIST05a.L

C:\Database\PMW TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	2.27	C:\Database\NIST05a.L Ecgonine methyl ester Ecgonine methyl ester Ecgonine methyl ester	106293-60-1 106293-60-1 106293-60-1	97 97 97





File Name : F:\Q4-2010\SYSTEM4\10 28 10\751392.D

Operator : ASD

Date Acquired 29 Oct 2010 5:48

Sample Name

Submitted by ASD Vial Number 92 AcquisitionMeth: DRUGS Integrator : RTE

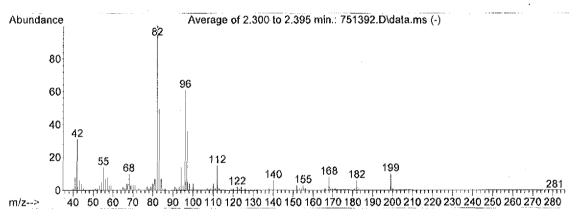
Search Libraries: C:\Database\SLI.L

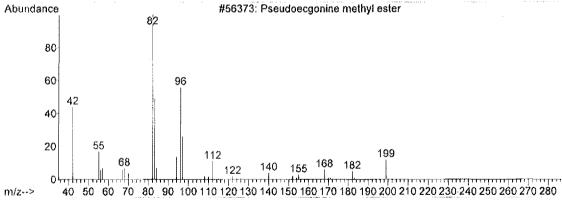
Minimum Quality: 80 Minimum Quality: 70

C:\Database\NIST05a.L

C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
3	2.32	C:\Database\NIST05a.L Pseudoecgonine methyl ester Ecgonine methyl ester Ecgonine methyl ester	099189-88-5 106293-60-1 106293-60-1	96 94 94





File Name : F:\Q4-2010\SYSTEM4\10 28 10\751392.D

Operator : ASD

Date Acquired 29 Oct 2010 5:48

: RTE

Sample Name Submitted by ASD 92 Vial Number AcquisitionMeth: DRUGS

Integrator

Search Libraries: C:\Database\SLI.L

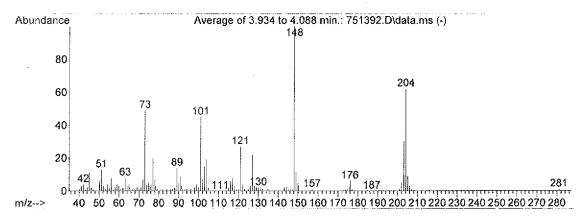
Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 70

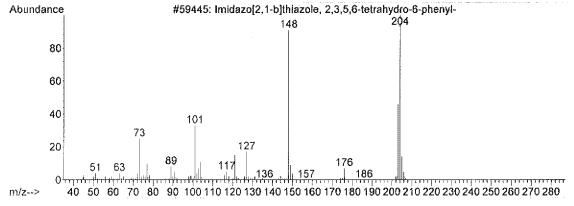
98

C:\Database\PMW TOX2.L

PK# RTLibrary/ID CAS# Qual 3.97 C:\Database\NIST05a.L Imidazo[2,1-b]thiazole, 2,3,5,6-tet 006649-23-6 99 Imidazo[2,1-b]thiazole, 2,3,5,6-tet 014769-73-4 99

Imidazo[2,1-b]thiazole, 2,3,5,6-tet 014769-73-4





File Name : F:\Q4-2010\SYSTEM4\10 28 10\751392.D

Operator : ASD

Date Acquired : 29 Oct 2010 5:48

Sample Name Submitted by

ASD Vial Number 92 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 Minimum Quality: 70

C:\Database\NIST05a.L

C:\Database\PMW TOX2.L

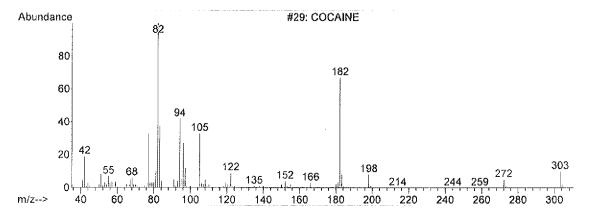
PK# RTLibrary/ID CAS# Qual

5 4.74 C:\Database\SLI.L

COCAINE

000050-36-2 99

Abundance Average of 4.691 to 4.812 min.: 751392.D\data.ms (-) 82 182 80 60 40 105 20 303 122 198 55 152 166 68 135 80 120 m/z--> 40 60 100 140 160 180 200 240 260 280 300

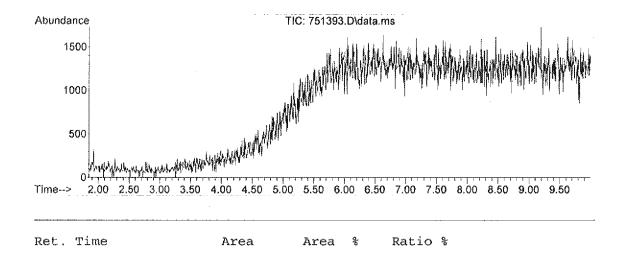


File Name : F:\Q4-2010\SYSTEM4\10 28 10\751393.D

Operator : ASD

Date Acquired : 29 Oct 2010 6:02

Sample Name : BLANK Submitted by : ASD Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE

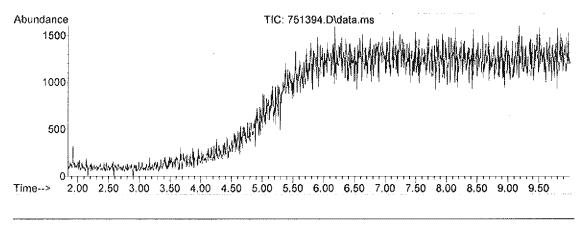


File Name : F:\Q4-2010\SYSTEM4\10 28 10\751394.D

Operator : ASD

Date Acquired : 29 Oct 2010 6:16

Sample Name : BLANK Submitted by : ASD Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time

Area

Area %

Ratio %

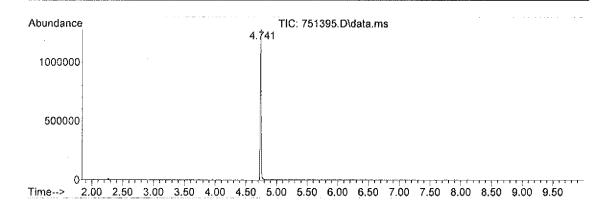
File Name : F:\Q4-2010\SYSTEM4\10\_28\_10\751395.D

Operator : ASD

Date Acquired : 29 Oct 2010 6:29

Sample Name : COCAINE STD

Submitted by : ASD Vial Number : 95 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.741	1350927	100.00	100.00

File Name : F:\Q4-2010\SYSTEM4\10 28 10\751395.D

Operator : ASD

Date Acquired : 29 Oct 2010 6:29

Sample Name : COCAINE STD

Submitted by : ASD Vial Number 95 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 Minimum Quality: 70

C:\Database\NIST05a.L

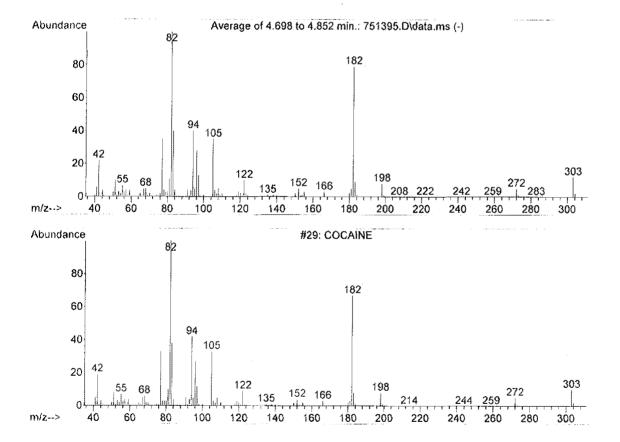
C:\Database\PMW TOX2.L

PK# RTLibrary/ID CAS# Qual

4.74 1 C:\Database\SLI.L

COCAINE

000050-36-2 99

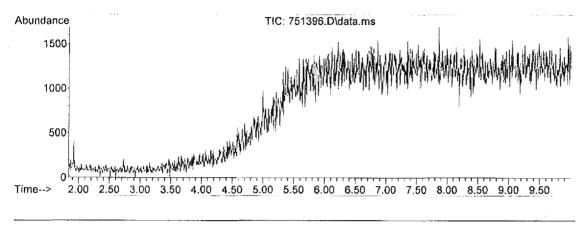


File Name : F:\Q4-2010\SYSTEM4\10 28 10\751396.D

Operator : ASD

Date Acquired : 29 Oct 2010 6:43

Sample Name : BLANK Submitted by : ASD Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time

Area

Area %

Ratio %